

TRC-54  
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Spectrum Management

Telecommunications Regulation Circular

# **Recommended Minimum Technical Requirements for FM Broadcasting Transmitters for Use in Small Remote Communities**

Release date: January 31, 1986

**Canada**

Aussi disponible en français - CRT-54

## Purpose

This circular outlines the recommended minimum technical requirements for the FM transmitting equipment operating in the 88 to 108 MHz frequency band to provide a very low power FM broadcasting service to small remote communities in accordance with Broadcast Procedure 15 (BP-15).

## Technical Requirements

The recommended minimum technical requirements for very low power FM transmitting equipment are as follows (for definitions and methods of test, refer to *Radio Standard Specification 153* (RSS-153)):

Power output rating	Up to 10 watts maximum
Channel frequency	To conform to standards allotted channels
Carrier frequency stability	$\pm 5$ kHz between 15 and 25 degrees C at rated line power input voltage
Spurious emissions	At least 45 dB below the level of the modulated carrier outside the frequency band starting at $\pm 600$ kHz separation from carrier
Audio frequency response	$\pm 3$ dB from 100 Hz to 10 kHz using standard 75 microsecond pre-emphasis
Audio frequency harmonic distortion	3% from 100 Hz to 10 kHz at a modulation deviation of $\pm 35$ kHz

## Equipment Verification Procedure

Those<sup>1</sup> seeking to establish that their equipment meets the minimum recommended technical requirements for very low power FM (VLPFM) transmitters, established in accordance with BP-15, shall satisfy the Department at their own expense that the equipment actually meets the requirements contained in this document. An affidavit signed by a person licensed by a Canadian provincial association of professional engineers is required to satisfy this requirement. The signed affidavit shall state the transmitter make and model number, the tests performed, the person responsible for the tests and a statement that the equipment meets TRC-54.

ORIGINAL SIGNED BY  
G.R. BEGLEY

G.R. Begley  
Director General  
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<sup>1</sup> Normally the equipment manufacturer or supplier